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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/548,377	04/12/2000	Satoko Tonegawa	13458 (JP9 1999-0060)	5409

7590 11/22/2004  
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EXAMINER

DASTOURI, MEHRDAD

ART UNIT PAPER NUMBER

2623

DATE MAILED: 11/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/548,377

**Applicant(s)**

TONEGAWA ET AL.

**Examiner**

Mehrdad Dastouri

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-9,11,12,14 and 16-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,7-9,12 and 16-19 is/are rejected.
- 7) ☒ Claim(s) 4-6,11 and 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 22, 2004 has been entered.

### *Response to Amendment*

2. Applicants' amendment filed July 22, 2004, has been entered and made of record.

### *Claim Rejections - 35 USC § 112*

3. The Examiner maintains 35 U.S.C. 112, first paragraph rejection of Claims 1, 2, 16, 17 and 19, as failing to comply with the written description requirement. The claims contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Claims 1, 2, 16, 17 and 19 recite "a data filling means for filling each of certain **first embedding data** to each of said divided first data blocks to **generate** a plurality of second data blocks **having second embedding data**", that does not exist in the specification at the time the application was filed.

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The Examiner agrees that "second embedding data" is supported by the original specification (Figure 2, 64-bit random number (key)), but indicates that this "second embedding data" is **generated** by the Key Information DB 22 not by inserting "first embedding data (96-bit watermark)" to each of the divided first data blocks.

Removing the term in the parenthetical explanation, "(second embedding data)", from the data extracting apparatus of the original claim, and including in the data filling apparatus of the claim without explicitly reciting the process of generating "first embedding data" and "second embedding data" has been resulted in a claim language inconsistent with the requirements of 35 U.S.C. 112.

4. 35 U. S. C. 112 rejection of Claims 1, 2, 16, 17 and 19 will be withdrawn if the claims were amended to comply with the configuration depicted in Figure 2.

#### ***Response to Arguments***

5. Applicant's arguments with respect to Claims 1-19 have been considered but are moot in view of the new grounds of rejection.

#### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S. C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351 (a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1, 2, 7-9, 12 and 16-19 are rejected under 35 U.S. C. 102(e) as being anticipated by Zeng (U.S. 6,373,974).

As per Claim 1, Zeng teaches:

a content data dividing means for dividing at least a part of said content data into a plurality of first blocks, each first data block containing a plurality of unit data (Figure 1a, Transformed image data  $\{I_i\}$ ; Column 4, Lines 34-39; Column 9, Lines 27-30. Unit data are DCT Coefficients of DCT transformed image.); and a data filling means for filling each of certain first embedding data to each of said divided first data blocks to generate a plurality of second blocks having second embedding data having second embedding data (Figures 1a, 2a, 2b and 2c; Column 9, Lines 30-47. The first embedding data is the logo image 16 or the watermark, and The second embedding data is the PN sequence  $\{S_{1i}\}$ .), the second data blocks having a modified relationships relative to the first data blocks between values of a corresponding plurality of said unit data in adjacent second data blocks according to a predefined rule (Column 5, Lines 14-67; Equation (1); Column 9, Lines 20-55. Second data blocks are watermarked first data blocks wherein the DCT Coefficients of the first data blocks are modified and correlated in accordance with the relationship illustrated in Equations (1)-(5).), said detection apparatus, comprising:

a data extracting means for extracting said second embedding data filled in each of at least a part of said second data blocks (Figure 1b; Column 7, Lines 8-42); and an alteration detecting means for detecting whether or not alteration was added to each of at least a part of said second d blocks based on said extracted second embedding data

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having the modified relationship according to the predefined rule (Equations (6) and (7); Column 7, Lines 8-42), and an altered position indication means for indicating the positions occupied by said second image blocks of which added alteration was detected (Figure 2c; Column 8, Lines 12-67, Column 9, Lines 1-4).

As per Claim 2, it recites the same limitations as Claim 1 above except it is directed to image data instead of content data, which is taught by Zeng, (Figure 1a; Abstract); therefore, the remarks above rejecting claim 1 are applicable to claim 2.

As per Claim 7, Zeng teaches:

wherein said first image blocks and said second image blocks are conversion blocks that contain said unit data, and also contain one or more sets of conversion coefficients acquired by dividing image data into certain processing blocks and converting it from a space area into a frequency area, respectively (Figures 1a-1b; Column 9, Lines 27-55).

As per Claim 8, it recites substantially the same limitations as Claim 7 above and analogous remarks apply because the specification defines unit data as DCT coefficients.

As per Claim 9, it recites broad limitations of an image dividing means and a data filling means that are substantially the same as the limitations addressed in Claims 1 and 2 above and analogous remarks apply.

As per Claim 12, it recites broad limitations of an alteration detection means and a data extracting means that are substantially the same as the limitations addressed in Claims 1 and 2 above and analogous remarks apply.

As per Claim 16, it recites substantially the same limitations as Claim 1 above and analogous remarks apply.

As per Claims 17, 18 and 19, it recites substantially the same limitations, but broader limitations, or a combination of the limitations as Claim 2 above and analogous remarks apply.

***Allowable Subject Matter***

8. Claims 4-6, 11 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, and overcome the 35 U.S.C. 112 rejection set forth in the Office Action.

Claim 4 of the instant invention recites the content alteration detection apparatus according to Claim 2 wherein said data filling means, in the case that alteration was added to any of said second image blocks, adjusts said mutually corresponding plurality of unit data values contained in said second image blocks to which alteration was added so that said values do not comply with said certain rule.

Claims 5 and 6 are dependent on Claim 4, and are therefore allowable.

As per Claims 11 and 14, they recite substantially the same limitations as Claim 4, and are therefore allowable.

The features identified are neither discussed nor suggested by the prior arts of record.

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**Contact Information**

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mehrdad Dastouri whose telephone number is (703) 305-2438. The examiner can normally be reached on Monday to Friday from 8:00 a.m. to 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703) 308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mehrdad Dastouri  
Primary Examiner  
Group Art Unit 2623  
November 20, 2004

MEHRDAD DASTOURI  
PRIMARY EXAMINER

*Mehrdad Dastouri*